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Allan M. Hansen

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EXAMINER

KARDOS, NEIL R

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/699,265	<b>Applicant(s)</b> HANSEN ET AL.	
	<b>Examiner</b> Neil R. Kardos	<b>Art Unit</b> 3623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-18 and 21-32 is/are pending in the application.
- 4a) Of the above claim(s) 31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-18 and 21-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

This is a **FINAL** Office Action on the merits in response to communications filed on November 30, 2009. Currently, claims 1, 4-18 and 21-30 are pending and have been examined.

***Response to Arguments***

Applicant's arguments filed on November 30, 2009 have been fully considered but they are not persuasive. Applicant argues the following:

- (A) Gupta in view of Cookson does not teach a product definition describing a collection of components for multiple possible configurations of a product, the product definition also providing details as to how the components are defined, developed, and manufactured. (See Remarks, pages 4-5).
- (B) Gupta in view of Cookson does not teach inputs to a product definition that include engineering requirements callouts. (See Remarks, pages 4-6).
- (C) Gupta in view of Cookson does not teach assessing applicability expressions, engineering requirements, and manufacturing availability as part of creating a product definition. (See Remarks, pages 4-6).
- (D) The § 103 rejection does not comply with MPEP 2142. (See Remarks, page 6).
- (E) Claims 1 and 21 are statutory under § 101. (See Remarks, page 7).

Applicant's arguments will now be addressed in turn.

- (A) **Gupta in view of Cookson does not teach a product definition describing a collection of components for multiple possible configurations of a product, the**

**product definition also providing details as to how the components are defined, developed, and manufactured. (See Remarks, pages 4-5).**

Regarding argument (A), Examiner respectfully disagrees. Gupta discloses a product definition describing a collection of components for multiple possible configurations of a product. (See column 2: lines 6-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration)"). Gupta also discloses that the product definition provides details as to how the components are defined. (See column 7: line 58 through column 8: line 4: "One who uses the GUI screen (a maintainer) can define a product. . . Parts catalog 204 uses a database or other type of storage and retrieval capability, for example, to store information about its parts (e.g. part number, description, price, etc.). Gupta's parts catalog with part descriptions was relied upon to teach the claimed details as to how the components are defined.

Cookson's parts catalog was relied upon to teach the claimed details as to how the components are developed and manufactured. (See paragraph 25: "Component catalog database 142 includes information about actual articles, such as those available for manufacturing a product or those available from a supplier such as a retailer"; paragraphs 33-41, disclosing storing information on how a product is assembled: "A multi-component article may be characterized as an assembly. . . . Articles of increased complexity may be characterized as one or more group assemblies that each include one or more assemblies."). As discussed in the non-final office action dated July 31, 2009, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that additional information from Cookson's

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parts catalog in the parts catalog of Gupta. This combination of known elements retains the functionality of the separate elements and produces a result that would be predictable to one of ordinary skill in the art.

Furthermore, as discussed in the non-final office action dated July 31, 2009, the data detailing how the components are defined, developed, and manufactured is nonfunctional descriptive material (such as printed matter or a mere arrangement of data) because it does not functionally affect the claimed process. Such nonfunctional descriptive material is not given patentable weight absent a new and unobvious functional relationship between the nonfunctional matter and the substrate. *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 1583-84 (Fed. Cir. 1994); MPEP 2106.01. Where the only difference between the prior art product and the claimed invention is printed matter that is not functionally related to the product, the content of the printed matter will not distinguish the claimed product from the prior art. *In re Ngai*, 367 F.3d 1336, 1339 (Fed. Cir. 2004); MPEP 2112.01(III).

**(B) Gupta in view of Cookson does not teach inputs to a product definition that include engineering requirements callouts. (See Remarks, pages 4-6).**

Regarding argument (B), Examiner agrees that Gupta and Cookson do not explicitly teach this limitation. However, Examiner took Official Notice of this limitation in the non-final office action dated July 31, 2009. Regarding the input of engineering requirements callouts, Examiner takes Official Notice that engineering requirements callouts were old and well-known in the art at the time the invention was made, and have been used on engineering drawings and specifications long before such items were computerized. It would have been obvious to one of

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ordinary skill in the art at the time the invention was made to include well-known engineering callouts in the product definitions of Gupta. This combination of known elements retains the functionality of the separate elements and produces a result that would be predictable to one of ordinary skill in the art.

Applicant has not properly traversed Examiner's Official Notice. To adequately traverse a fact that has been Officially Noticed, "an applicant must specifically point out the supposed errors in the examiner's action, **which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.**" (emphasis added). See MPEP § 2144.03 (C). Applicant has not provided any evidence that engineering requirements callouts are not common knowledge or well-known in the art. Because Applicant's traversal is inadequate, Examiner's findings of Official Notice set forth in the previous Office Action are taken to be admitted prior art. See MPEP § 2144.03 (C).

Finally, Examiner has provided documentary evidence to support Examiner's Official Notice. (See DocBook: The Definitive Guide; page 2: "A 'callout' is a visual device for associating annotations with an image, program listing, or similar figure. Each location is identified with a mark, and the annotation is identified with the same mark. This is somewhat analogous to the notion of footnotes in print.").

**(C) Gupta in view of Cookson does not teach assessing applicability expressions, engineering requirements, and manufacturing availability as part of creating a product definition. (See Remarks, pages 4-6).**

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Regarding argument (C), Examiner respectfully disagrees. Gupta was relied upon to teach applicability expressions and engineering requirements. The specification states that "Applicability is a statement defining the conditions under which an item is capable of being applied." (See Specification, page 6, lines 3-4). Gupta teaches this concept: "Preferably, the part relationships are: included, excluded, removed, and requires choice. An included part is included automatically. A part is excluded from the configuration when its inclusion would result in an invalid configuration. A part may be removed when another part is added." (See column 2: lines 25-39). Gupta teaches ensuring compatibility and validity of configurations based on the components that are included. Product definitions that define the conditions under which a component can be added are utilized in order to perform this validity check. (See column 5: lines 23-25; column 6: lines 1-4 and 22-31). Thus, Gupta teaches applicability expressions and engineering requirements.

Cookson was relied upon to teach manufacturing availability. "Component catalog database 142 includes information about actual articles, such as those available for manufacturing a product or those available from a supplier such as a retailer." (See ¶ 25). As discussed in the non-final office action dated July 31, 2009, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include assess the manufacturing availability information taught by Cookson when determining the availability of features and options as taught by Gupta. One of ordinary skill in the art would have been motivated to do so for the benefit of an accurate determination of which parts and products are available for manufacturing.

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**(D) The § 103 rejection does not comply with MPEP 2142. (See Remarks, page 6).**

Regarding argument (D), Examiner respectfully disagrees. Applicant asserts that "the office action does not explain why it would be obvious to incorporate engineering requirement callouts in either Gupta's or Cookson's system." Page 9 of the non-final office action dated July 31, 2009 states: "It would have been obvious to one of ordinary skill in the art at the time the invention was made to include well-known engineering callouts in the product definitions of Gupta. This combination of known elements retains the functionality of the separate elements and produces a result that would be predictable to one of ordinary skill in the art." Thus, Examiner relied on rationale (A) listed in MPEP 2143.

**(E) Claims 1 and 21 are statutory under § 101. (See Remarks, page 7).**

Regarding argument (E), Examiner respectfully disagrees. It still appears that "using a computer" appears in the preamble of claims 1 and 21. Merely reciting in the preamble that the method is computer-implemented is insufficient to make the claimed process statutory under § 101. For clarification, Applicant should amend the claims to clearly place the computer-implemented step in the body of the claim. This can be done by inserting a colon after "comprising" and beginning the computer-implemented step on a new line.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1, 4-18, and 21-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claims 1 and 21: Claims 1 and 21 are directed toward the statutory category of a process. In order for a claimed process to be patentable subject matter under 35 U.S.C. § 101, it must either: (1) be tied to a particular machine, or (2) transform a particular article to a different state or thing. *See in re Bilski*, 545 F.3d 943, 956 (Fed. Cir. 2008); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method/process is not patentable subject matter under § 101. Thus, to qualify as a statutory process under § 101, the claim should positively recite the machine to which it is tied (e.g. by identifying the apparatus that accomplishes the method steps), or positively recite the subject matter that is being transformed (e.g. by identifying the material that is being changed to a different state). Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. *See Bilski*, 545 F.3d at 957; *Benson*, 409 U.S. at 71-72. Thus, incidental physical limitations such as insignificant extra-solution activity and field of use limitations are not sufficient to convert an otherwise ineligible process into a statutory one.

Here, the claimed process fails to meet the above requirements for patentability under § 101 because it is not tied to a particular machine and does not transform an article to a different state. Merely reciting in the preamble that the method is computer-implemented is insufficient to make the claimed process statutory under § 101.

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Claims 4-18 and 22-30: The dependent claims are rejected for failing to remedy the deficiencies of the claims from which they depend.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 4-18, and 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta (US 6,405,308) in view of Cookson (US 2004/0083239), and further in view of Official Notice.**

Claim 1: Gupta discloses a method comprising using a computer to create a product definition,

- the product definition describing a collection of components for multiple possible configurations of a product (see column 2: lines 6-13, disclosing a product definition that defines parts that must be included, a choice required between two parts, and parts that can be optionally included in a product; column 2: lines 25-39; column 6: lines 1-7, disclosing configuring a product among a set of related products based on availability and compatibility of features and options; column 7: lines 35-56), the product definition also providing details as to how the components are defined (see column 7: line 58 through column 8: line 4,

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disclosing a parts catalog that stores information about parts, including a description), and wherein creating the product definition includes:

- creating instantancings of one or more usage-based product definition inputs, the inputs including component descriptions and engineering requirement callouts for the different configurations (see column 7: lines 35-56, disclosing creating instances; column 7: line 58 through column 8: line 4, disclosing a parts catalog that stores information about parts, including a description; column 5: lines 23-25, disclosing a product definition that includes an identification of the components and their interrelationships; column 6: lines 27-31; column 1: lines 21-24, disclosing valid configurations);
- assessing applicability expressions (column 2: lines 25-39, disclosing conditions under which a component is capable of being applied; column 5: lines 23-25; column 6: lines 1-4 and 22-31, disclosing ensuring compatibility and validity of configurations based on the components that are included by utilizing product definitions that define the conditions under which a component can be added) and engineering requirements (see id.) to determine which instantancings are available and valid for the different configurations (see id.); and
- generating the product definition based on all instantancings that are valid and available (see column 7: lines 35-56).

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Gupta does not explicitly disclose that the parts catalog provides details as to how the components are developed and manufactured. Cookson discloses this limitation. (See ¶ 25, disclosing a component catalog with information about articles, including those that are available for manufacturing a product, and those that are available from a supplier; ¶¶ 33-41, disclosing storing information on how a product is assembled; ¶¶ 50, disclosing an assembly definition). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include that additional information from Cookson's parts catalog in the parts catalog of Gupta. This combination of known elements retains the functionality of the separate elements and produces a result that would be predictable to one of ordinary skill in the art. Furthermore, this additional data is nonfunctional descriptive material (such as printed matter or a mere arrangement of data) because it does not functionally affect the claimed process. Such nonfunctional descriptive material is not given patentable weight absent a new and unobvious functional relationship between the nonfunctional matter and the substrate. *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 1583-84 (Fed. Cir. 1994); MPEP 2106.01. Where the only difference between the prior art product and the claimed invention is printed matter that is not functionally related to the product, the content of the printed matter will not distinguish the claimed product from the prior art. *In re Ngai*, 367 F.3d 1336, 1339 (Fed. Cir. 2004); MPEP 2112.01(III).

Regarding the input of engineering callouts, Examiner takes Official Notice that engineering callouts were old and well-known in the art at the time the invention was made, and have been used on engineering drawings and specifications long before such items were computerized (see documentary evidence supplied by Examiner -- DocBook: The Definitive

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Guide, page 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include well-known engineering callouts in the product definitions of Gupta. This combination of known elements retains the functionality of the separate elements and produces a result that would be predictable to one of ordinary skill in the art.

Gupta does not explicitly disclose assessing manufacturing availability to determine which instantings are available and valid for different configurations. Cookson discloses this limitation. (See ¶ 25, disclosing including information about articles available for manufacturing a product). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include assess the manufacturing availability information taught by Cookson when determining the availability of features and options as taught by Gupta. One of ordinary skill in the art would have been motivated to do so for the benefit of an accurate determination of which parts and products are available for manufacturing.

Claim 4: Gupta does not explicitly disclose wherein instancing one or more usage-based product definition inputs includes transforming a coordinate system of a component from a component-centered coordinate system to a product-centered coordinate system.

Official Notice is taken that it is old and well known in the design arts (*e.g.*, AutoCAD) that a coordinate system of a designed part is converted to the coordinate system of a designed system/product when the part is included in a product or system. It would have been obvious to one of ordinary skill in the art at the time of the invention to introduce coordinate transformation when configuring a system from parts, as done by Gupta, in order to simplify the design and presentation of a part when presented as part of a product.

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Examiner notes that Applicant has failed to traverse Examiner's Official Notice, which was originally set forth in the previous Office action. Therefore, Examiner's findings of Official Notice are taken to be admitted prior art. See MPEP § 2144.03 (C).

Claim 5: Gupta does not disclose wherein instanting one or more usage-based product definition inputs includes instanting a sub-component having a first configuration, and instanting the sub-component a second time having a second.

Official Notice is taken that it is old and well known in the design arts (e.g., AutoCAD) that selected similar parts can be configured in numerous ways by specifying product parameters. For example, it is old and well known in aviation that airplane seats are configured differently between coach and first class. It would have been obvious to one of ordinary skill in the art at the time of the invention to allow for instanting a sub-component, as done by Gupta, multiple times, each with a different configuration, as doing so allows for design choices that meet a customer's needs.

Examiner notes that Applicant has failed to traverse Examiner's Official Notice, which was originally set forth in the previous Office action. Therefore, Examiner's findings of Official Notice are taken to be admitted prior art. See MPEP § 2144.03 (C).

Claim 6: Gupta discloses wherein instanting one or more usage-based product definition inputs includes instanting a predetermined component based on a product class configuration rule (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a

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group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).”)

Claim 7: Gupta discloses wherein the instanting a predetermined component based on a product class configuration rule includes instanting a predetermined component based on a mandatory configuration rule (see at least Fig 4 and column 2, lines 9-13: “Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).”).

Claim 8: Gupta discloses wherein the instanting a predetermined component based on a product class configuration rule includes instanting a predetermined component based on a configuration default rule (see at least Fig 4 and column 2, lines 9-13: “Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).”).

Claim 9: Gupta discloses wherein assessing an applicability expression includes assessing an option expression (see at least Fig 4 and column 2, lines 9-13: “Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).”).

Claim 10: Gupta discloses wherein assessing an option expression includes assessing at least one of a default option expression, an available option expression, and a not available option expression (see at least Fig 4 and column 2, lines 9-13: “Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).”).

Claim 11: Gupta discloses wherein assessing an option expression includes assessing an option from an option category associated to a product (see at least Fig 4 and column 2, lines 9-13: “Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).”).

Claim 12: Gupta discloses wherein assessing an option expression includes assessing at least one of a mandatory option or a mutually exclusive option (see at least Fig 4 and column 2, lines 9-13: “Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).”).

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Claim 13: Gupta discloses wherein assessing an applicability expression includes assessing a configuration rule, the configuration rule being adapted to at least one of validate a configuration specification and populate a configuration specification (see at least abstract: “A configuration system validates a configuration using the system definition, the current state of the configuration and user input.”).

Claims 14 and 15: Gupta does not explicitly disclose wherein instantiating one or more usage-based product definition inputs includes instantiating a public instance representation of a lower level product by a higher level product or wherein instantiating a public instance representation of a lower level product by a higher level product includes filtering the public instance representation through the instance of the higher-level product.

In light of the specification and ordinary skill in the art of object-oriented programming and design (OOP/D), claims 14 and 15 appear to recite the well known operation of inheritance in an object class hierarchy, namely, that object creation ("instantiating of a representation") of a child class necessarily creates an instance of the parent class ("instantiating of a public class"), and that creating an instance of the child parent necessarily applies the object creation rules of the parent (i.e. the so called "filtering" of the public instance representation).

Official Notice is taken that such OOP/D concepts and operations are old and well known to those of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art to use such operations and concepts as are found in OOP/D in the implementation of Gupta, the parts representations and relationships represented in an object class hierarchy, thus necessarily including the operations as recited, as this would have provided a well known programming

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methodology to a design methodology which closely matches the inherent nature of object-oriented programming.

Examiner notes that Applicant has failed to traverse Examiner's Official Notice, which was originally set forth in the previous Office action. Therefore, Examiner's findings of Official Notice are taken to be admitted prior art. See MPEP § 2144.03 (C).

Claim 16: Gupta does not explicitly disclose wherein instanting one or more usage-based product definition inputs includes instanting in accordance with a configuration at location option by a customer.

Official Notice is taken that it is old and well known in the design arts to custom design/configure certain products per a customer's specification. Furthermore, it is old and well known to do so based on the product's intended location. Multiple products are designed to meet a customer's spatial needs. For example, it is old and well known in aviation that airplane seats are configured differently between coach and first class. It would have been obvious to one of ordinary skill in the art at the time of the invention to allow for configuring a product, as done by Gupta, by taking into account a customer's location needs as doing so increases the odds of selling a product and guaranteeing customer satisfaction and repeat business.

Examiner notes that Applicant has failed to traverse Examiner's Official Notice, which was originally set forth in the previous Office action. Therefore, Examiner's findings of Official Notice are taken to be admitted prior art. See MPEP § 2144.03 (C).

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Claims 17 and 18: Gupta does not explicitly disclose wherein at least one of instancing one or more usage-based product definition inputs includes instancing in accordance with a unitized manufacturing assembly plan or wherein assessing at least one of an applicability expression, an engineering requirement, and a manufacturing availability expression includes assessing in accordance with a unitized manufacturing assembly plan.

Official notice is taken that it is old and well known in the art of design and manufacturing to select and design a product with accordance with a manufacturing assembly plan. For example, Design for Manufacturability (DFM) and Design for Assembly (DFA) ensure that system design meet feasible manufacturability requirements. It would have been obvious for one of ordinary skill in the art at the time of the invention to implement DFM and DFA practices with the design and system configuration of Gupta, as doing so ensures that product design meets feasible manufacturability requirements for each part and/or component in the design. In addition, implementing DFM and DFA practices has the added benefit of reducing the assembly time and assembly costs.

Examiner notes that Applicant has failed to traverse Examiner's Official Notice, which was originally set forth in the previous Office action. Therefore, Examiner's findings of Official Notice are taken to be admitted prior art. See MPEP § 2144.03 (C).

Claim 21: Claim 21 is substantially similar to claim 1 and is rejected under similar rationale. However, Gupta and Cookson do not explicitly disclose using the claimed methodology on an air vehicle. Gupta teaches selecting and configuring a product based on availability and compatibility of features and options. The recitation of fuselage (and its

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components) and propulsion systems are intended use and the method steps do not depend on any actual data/inputs/rules used; hence the applicability of the method to an air vehicle definition is not given any patentable weight. Per Gupta, column 5, lines 46-48: "Examples of systems that can be maintained or configured using the invention include automobiles, computers, time clock machines, and shoes." Per Cookson, paragraph 6: "a personal computer, an automobile, a construction project, etc." It would have been obvious to one of ordinary skill in the art at the time of the invention to extend the methods of Gupta and Cookson to define airplanes, helicopters, trains, and other tailored products as all are known to have customizable features that depend on a customer's needs and preferences. This rationale also applies to the rejection of claims 22-30, which depend from claim 21.

Claim 22: Claim 22 is substantially similar to claim 4 and is rejected under similar rationale.

Claims 23-25: Claims 23-25 are substantially similar to claim 6-8 and are rejected under similar rationale.

Claim 26: Claim 26 is substantially similar to claim 10 and is rejected under similar rationale.

Claims 27-29: Claims 27-29 are substantially similar to claims 13-15 and are rejected under similar rationale.

Claim 30: Claim 30 is substantially similar to claims 17-18 and is rejected under similar rationale.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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